



Applicant: Mitch Randall  
Express Mail Label: EV 415484014 US  
Filing Date: July 2, 2003  
Title: APPARATUS AND METHOD FOR PRODUCING  
AMBULATORY MOTION  
File No.: 23104-001

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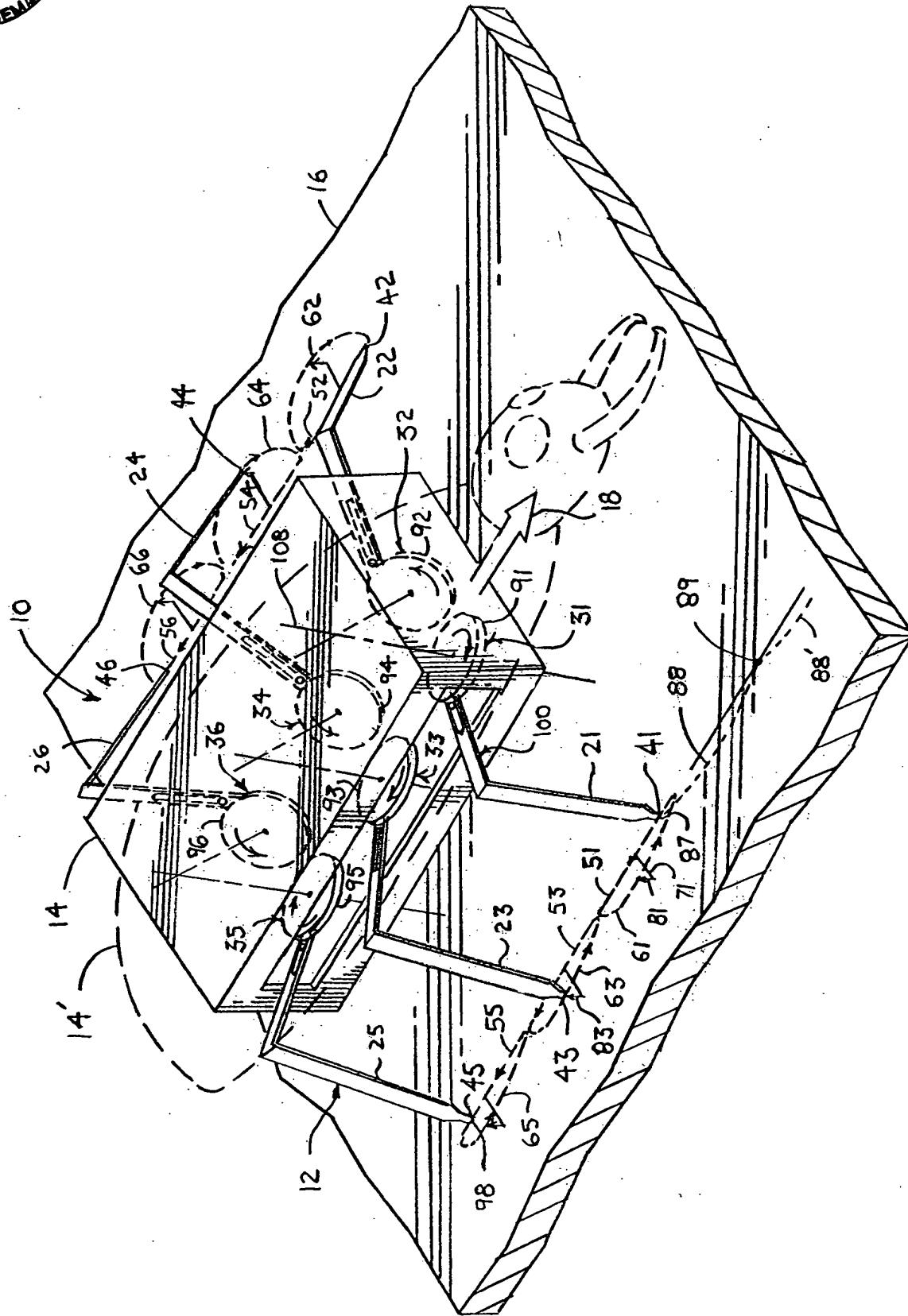


FIG. 1



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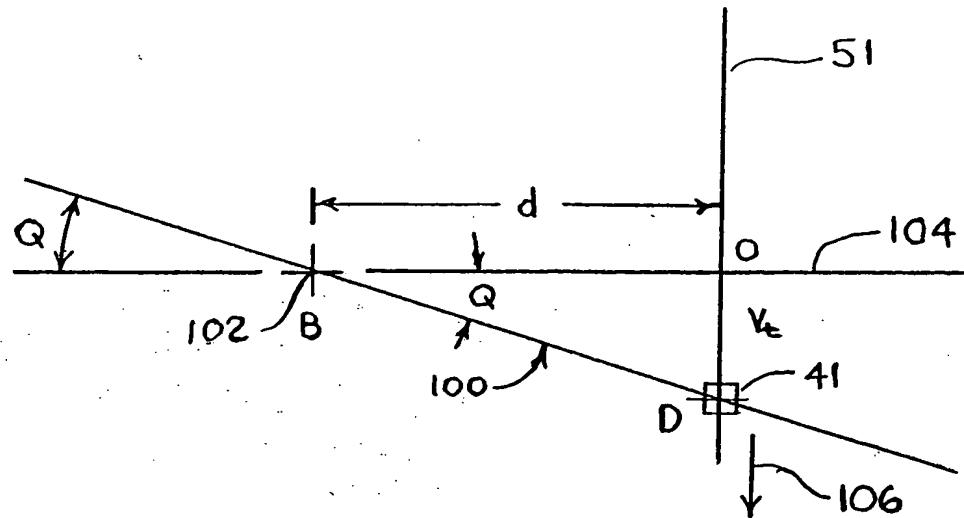


FIG. 2

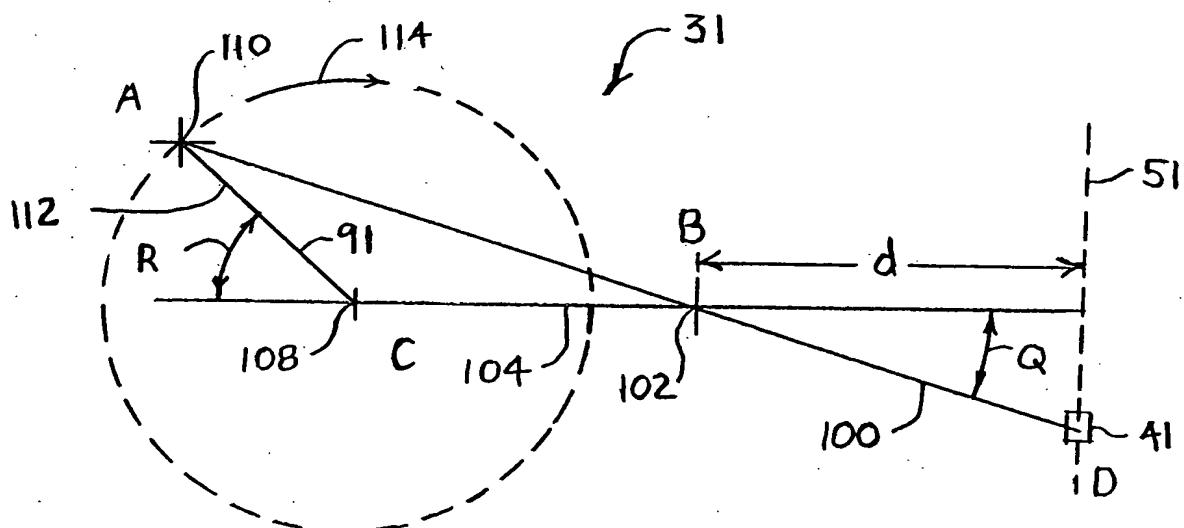


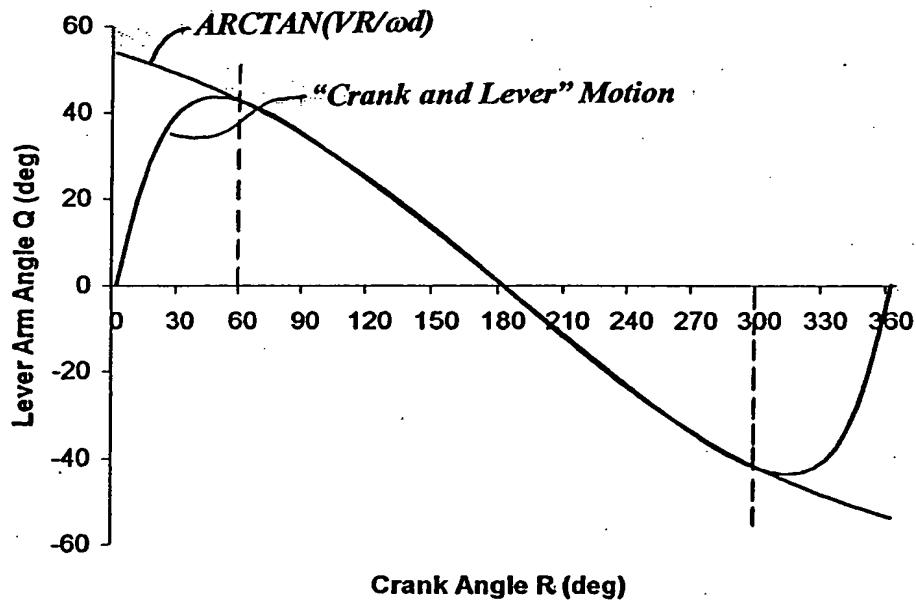
FIG. 3



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**Approximation of ARCTAN (VR/wd)**  
**required for constant foot speed**



**FIG. 4**



Normalized Foot Speed resulting from  
ATAN(VR/wd) approximation

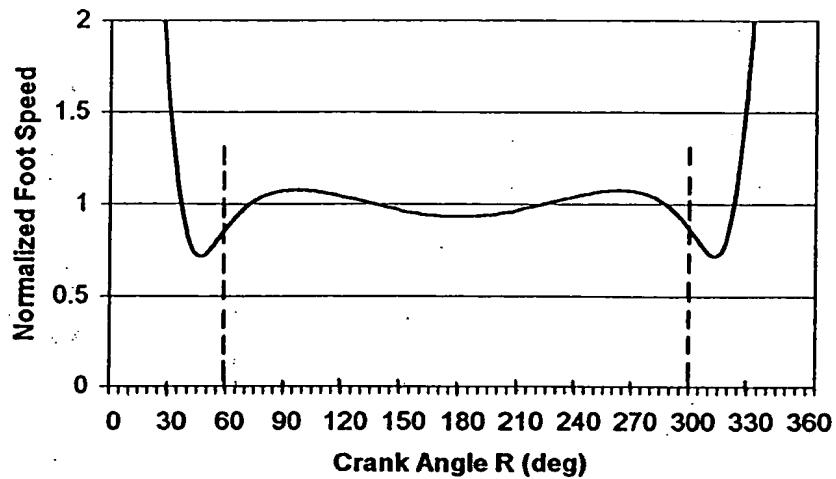


FIG. 5

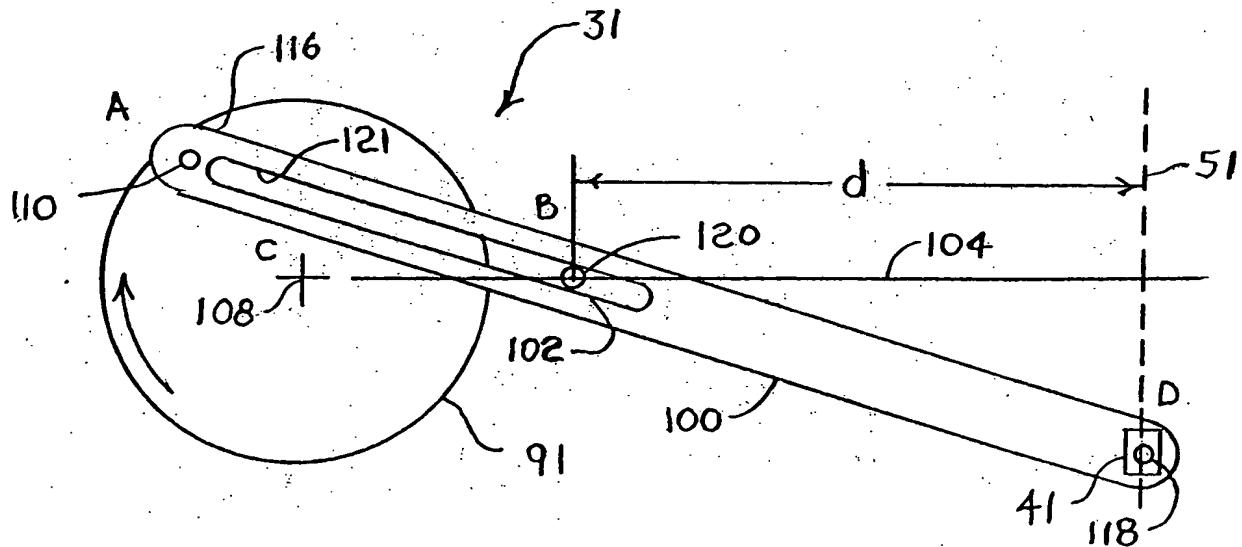


FIG. 6

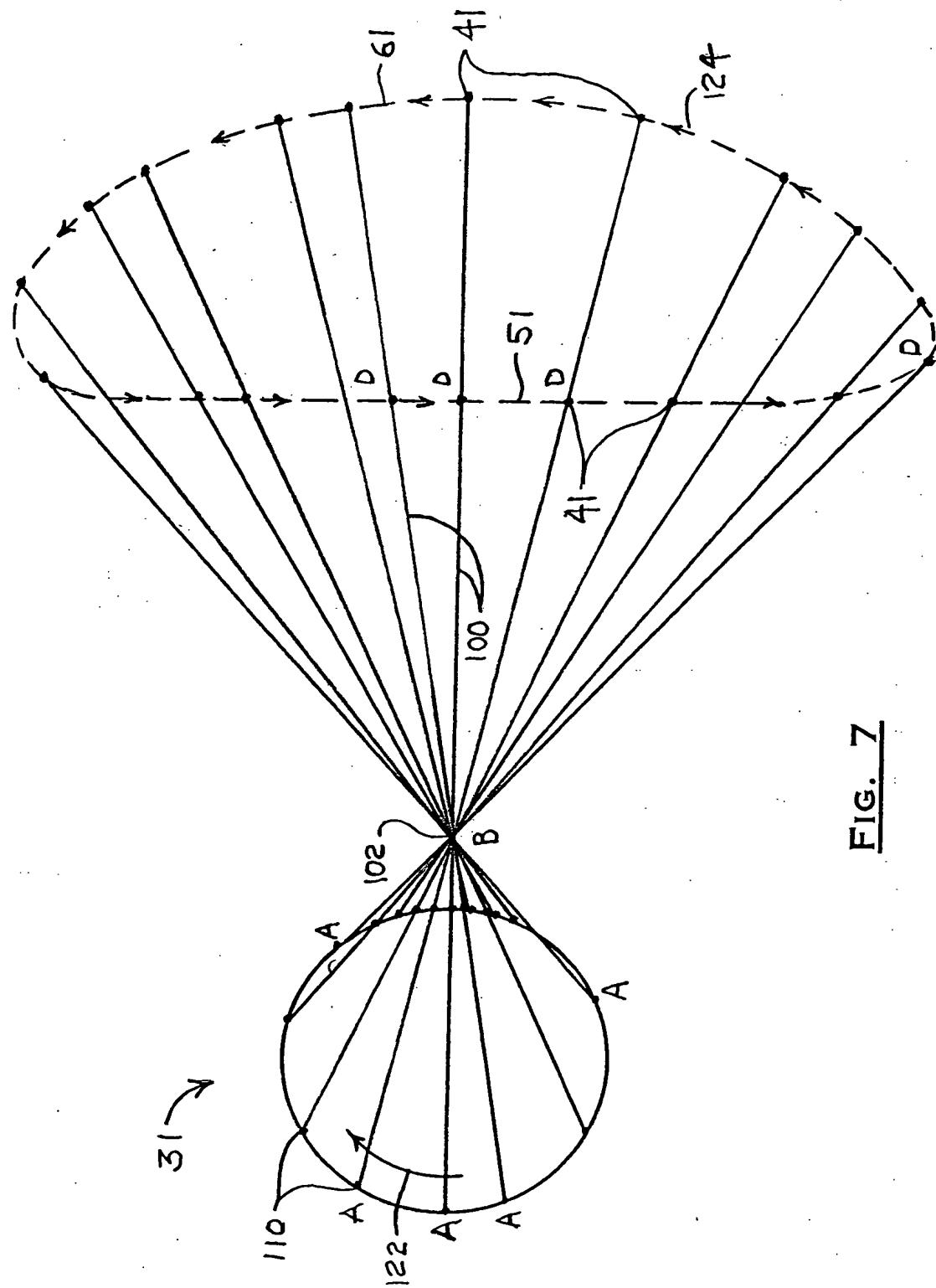


FIG. 7

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PATENT & TRADEMARK OFFICE

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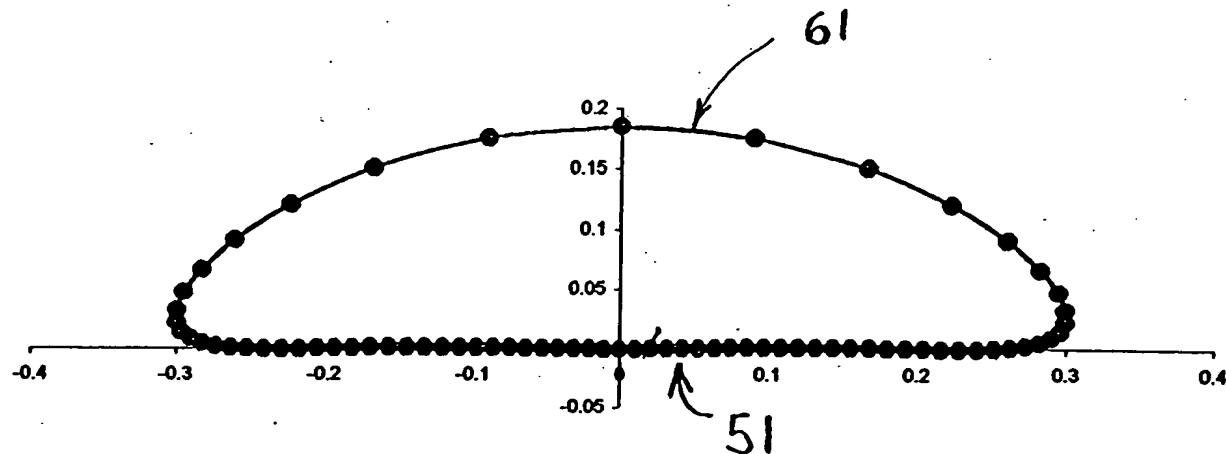


FIG. 8

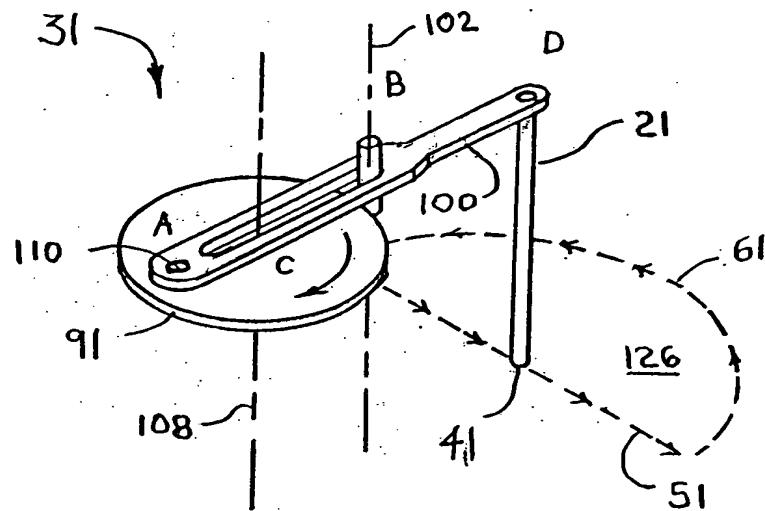


FIG. 9

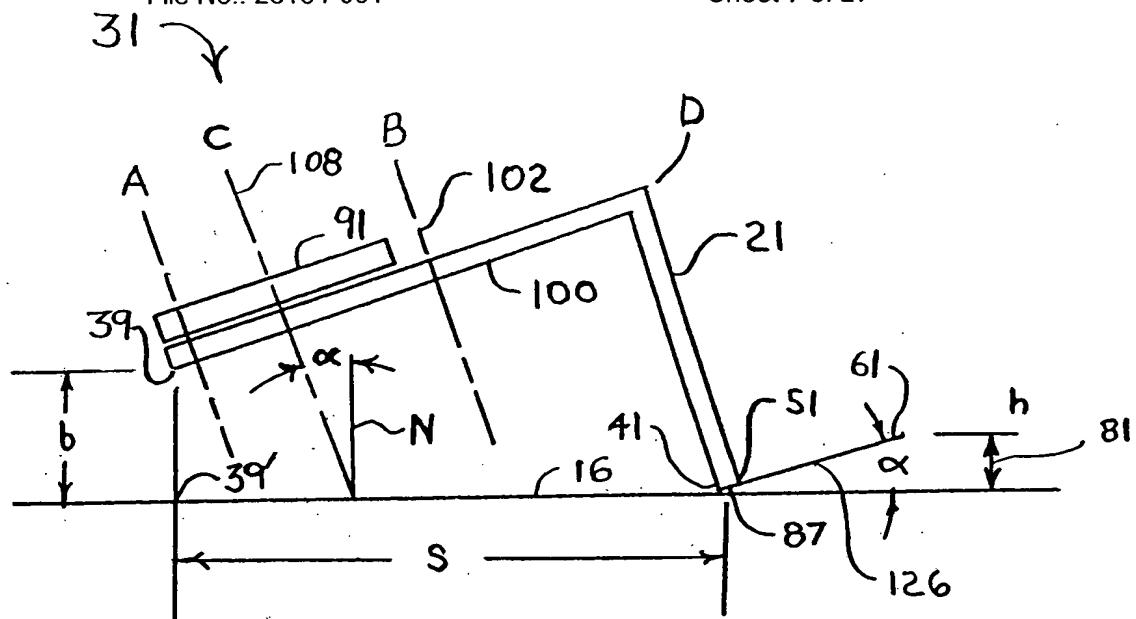


FIG. 10

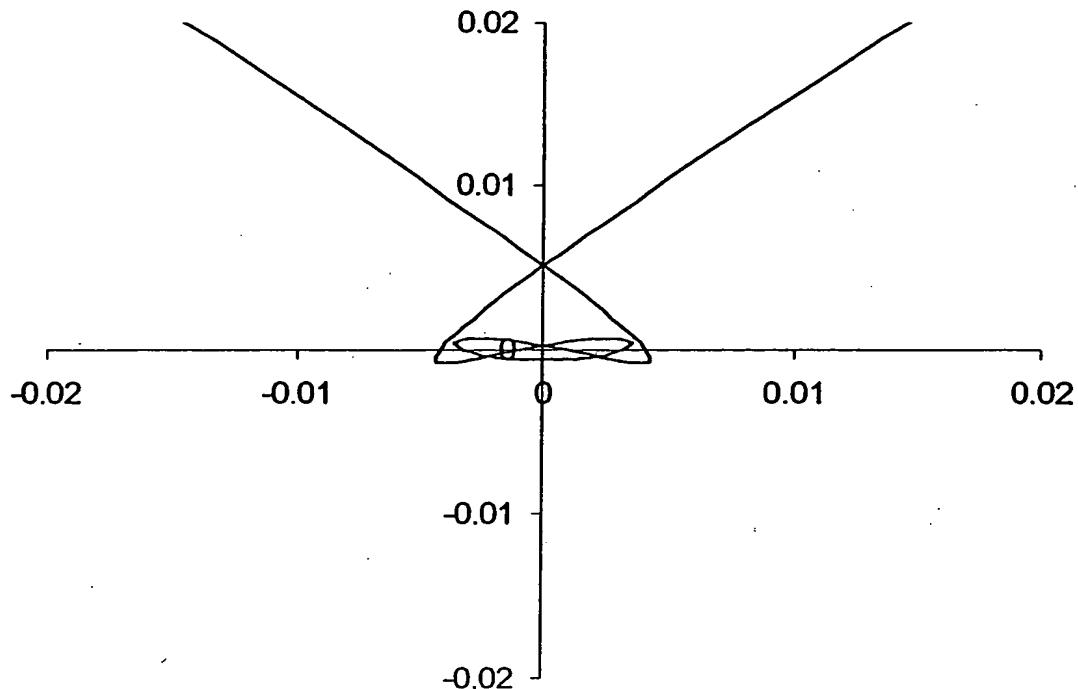


FIG. 11



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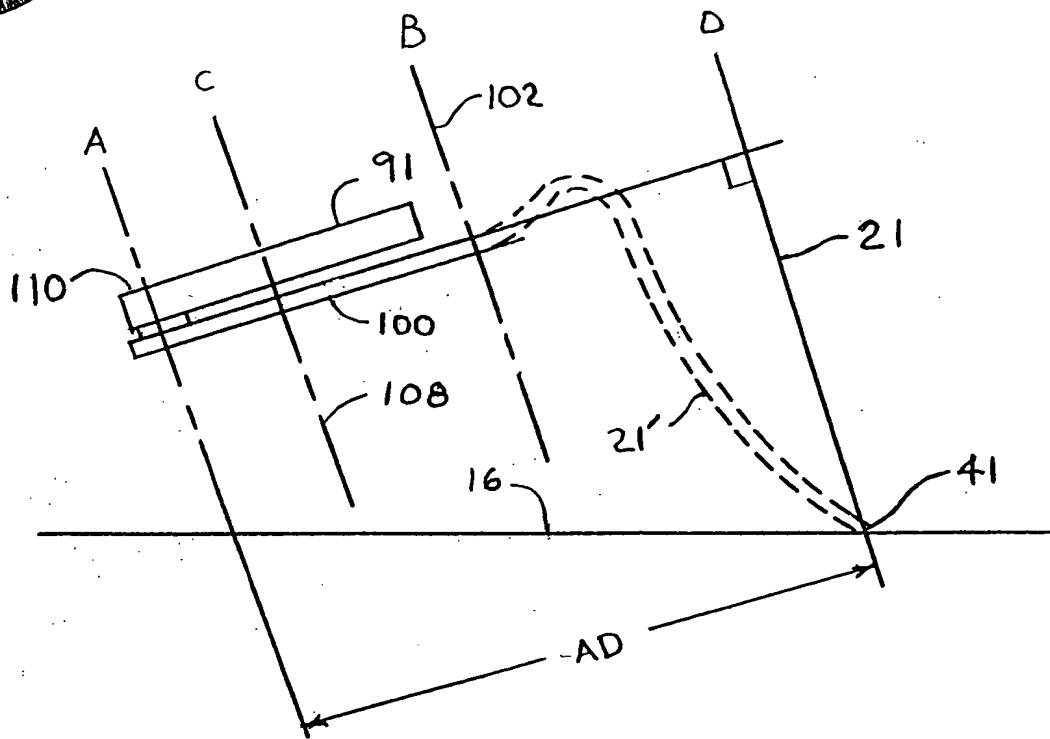


FIG. 12

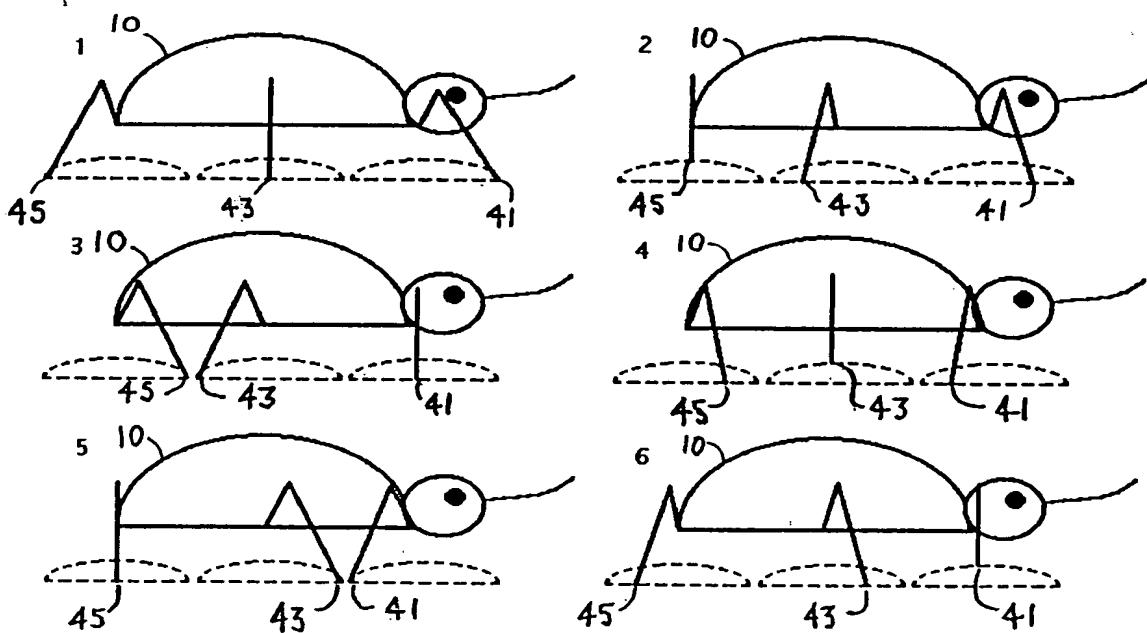
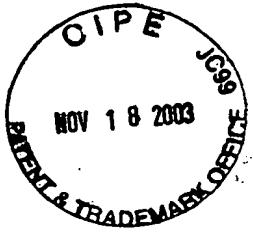


FIG. 13



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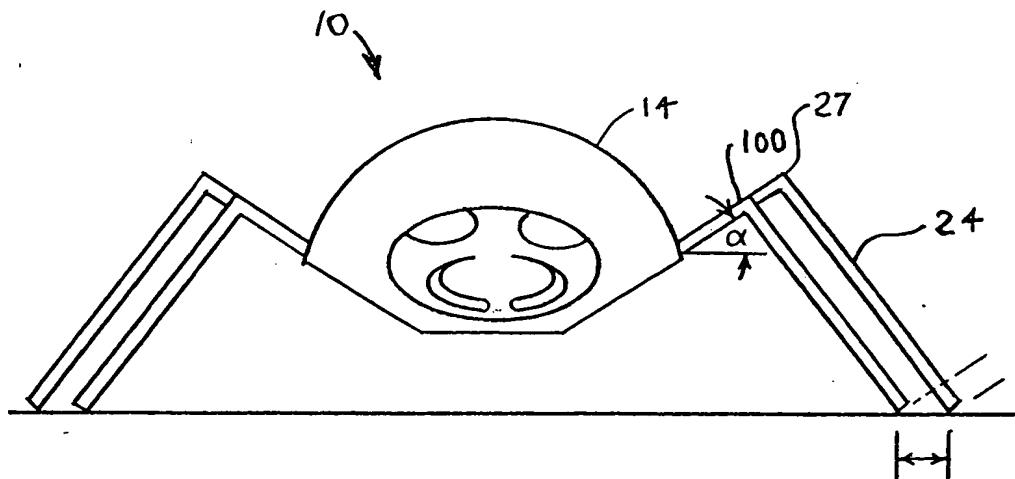


FIG. 14

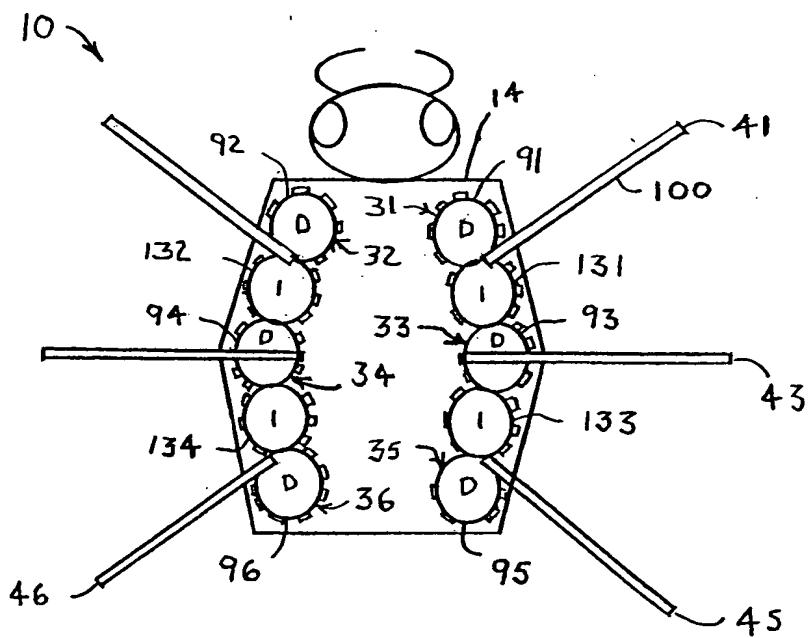


FIG. 15



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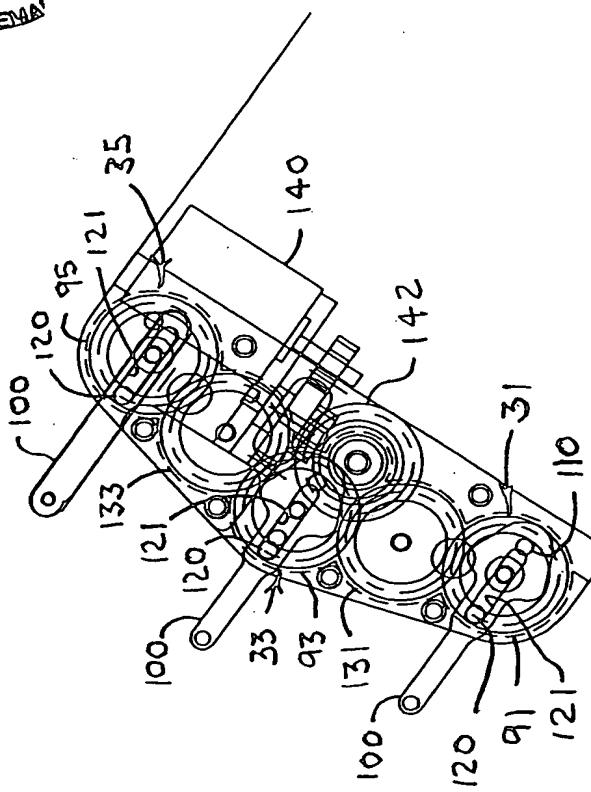


FIG. 18

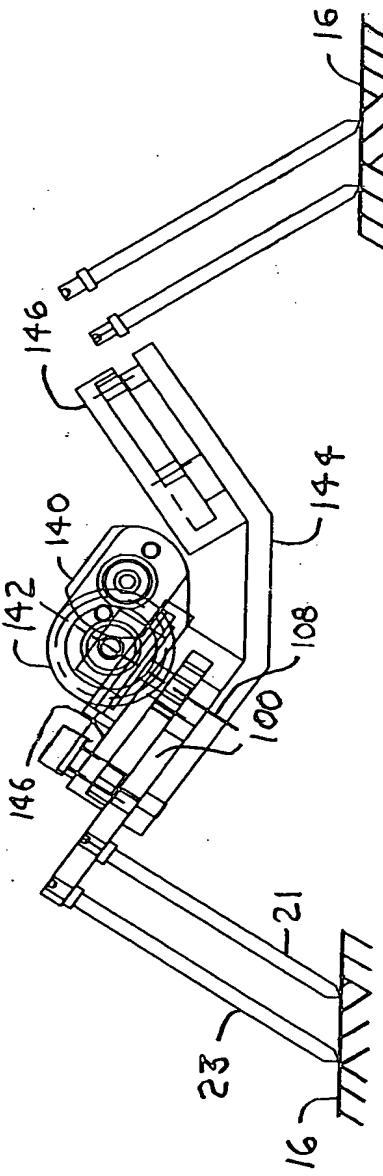


FIG. 16

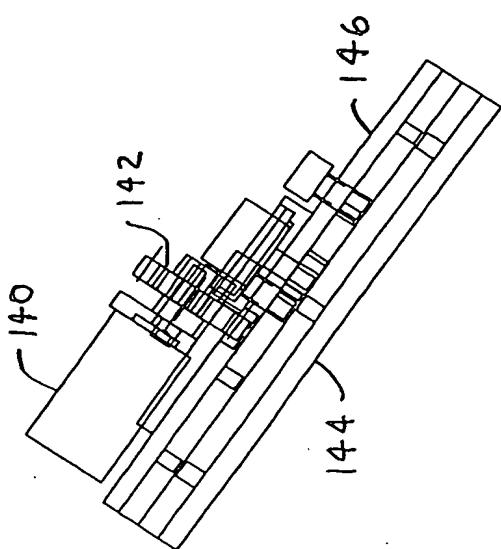


FIG. 17



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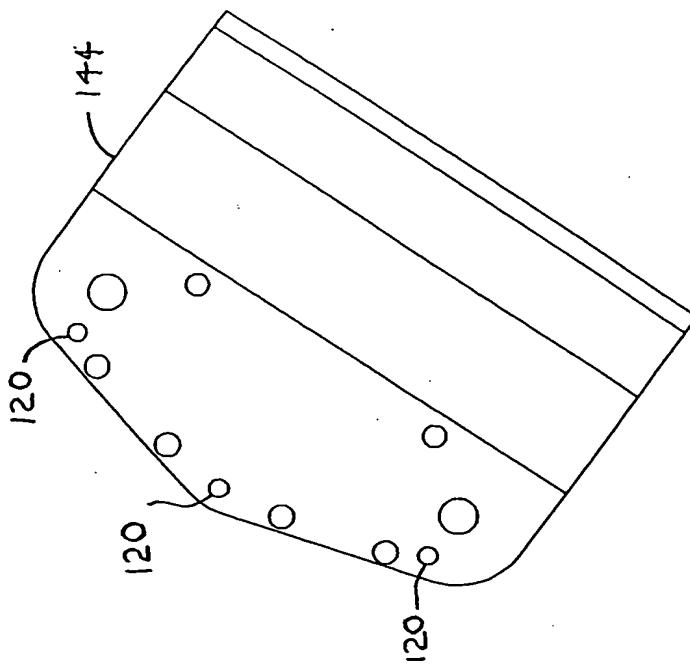


FIG. 21

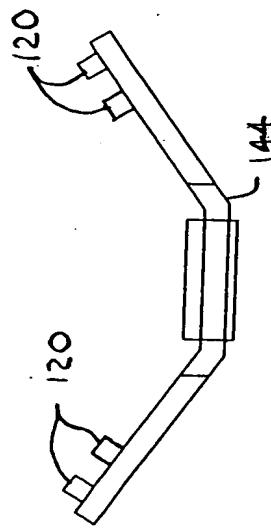


FIG. 19

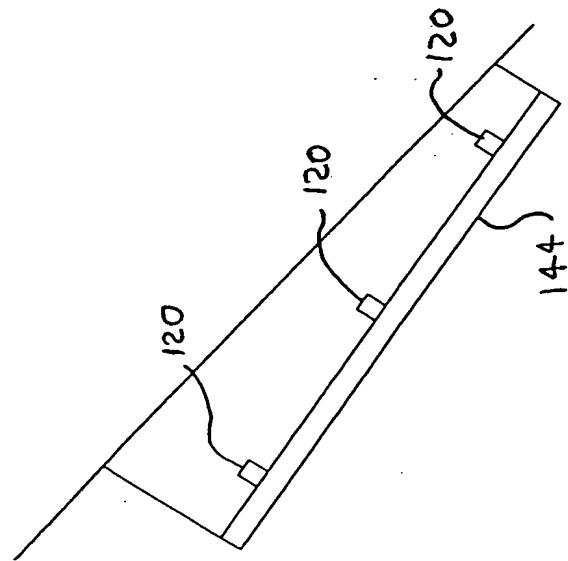


FIG. 20



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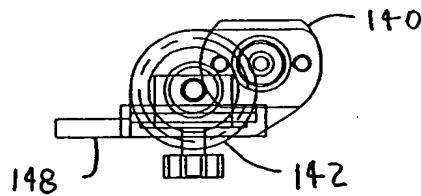


FIG. 22

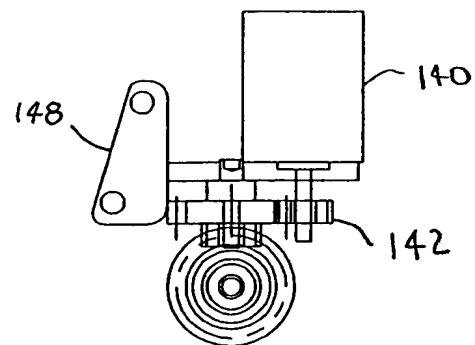


FIG. 23

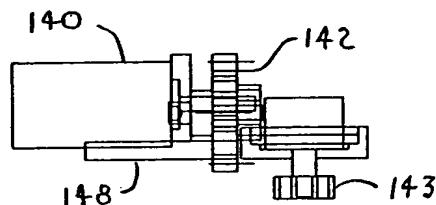


FIG. 24

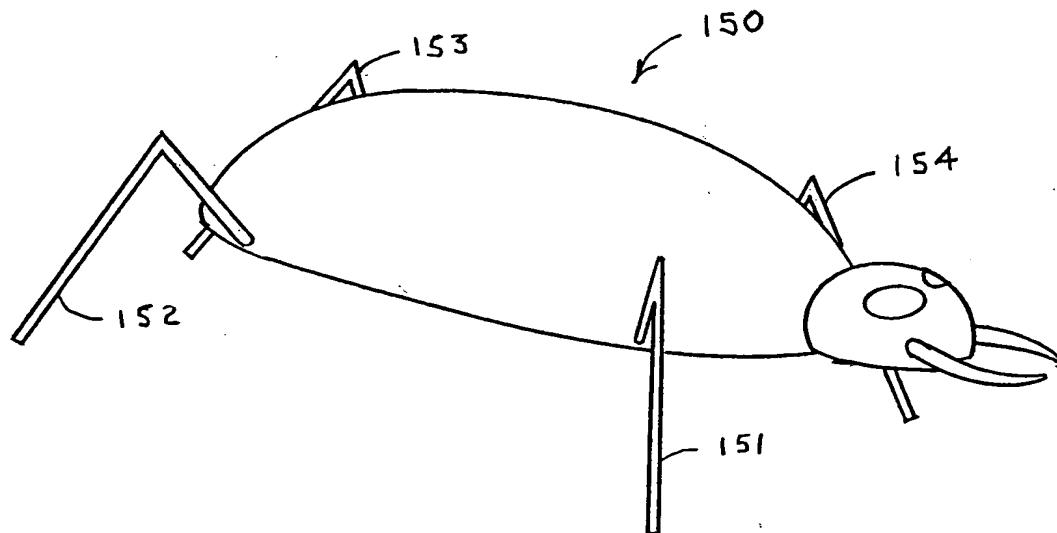


FIG. 27

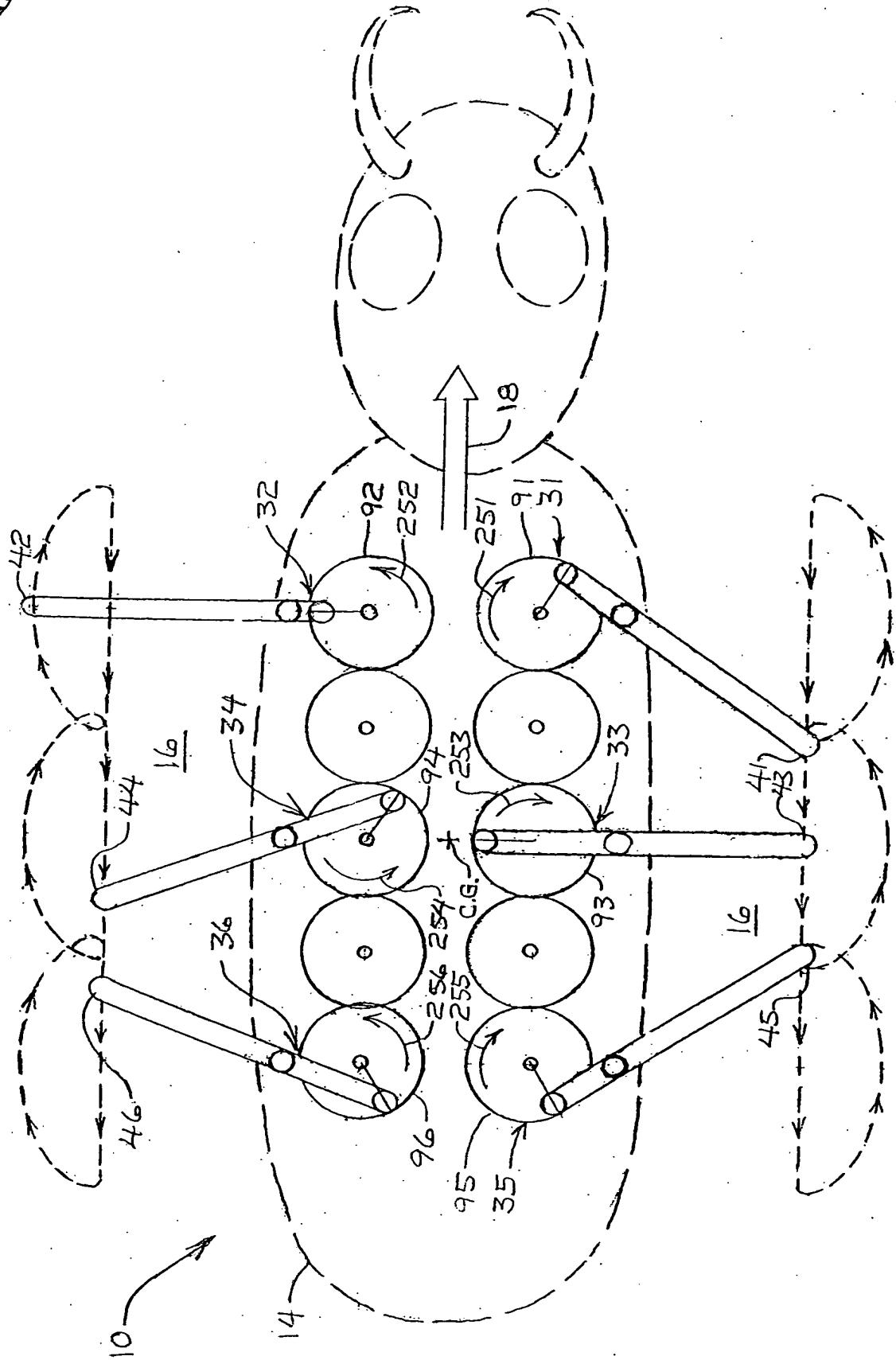


FIG. 25



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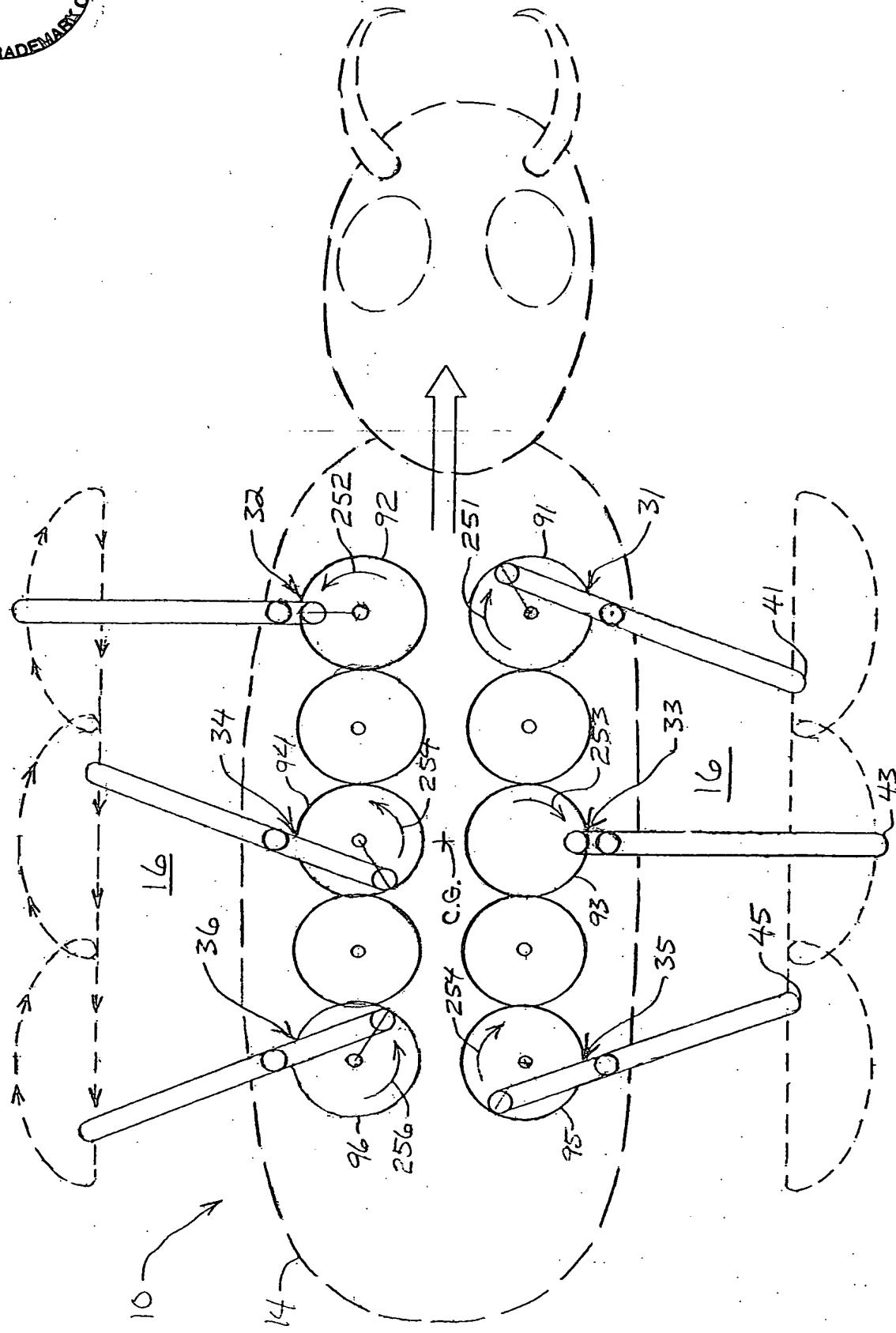


FIG. 26



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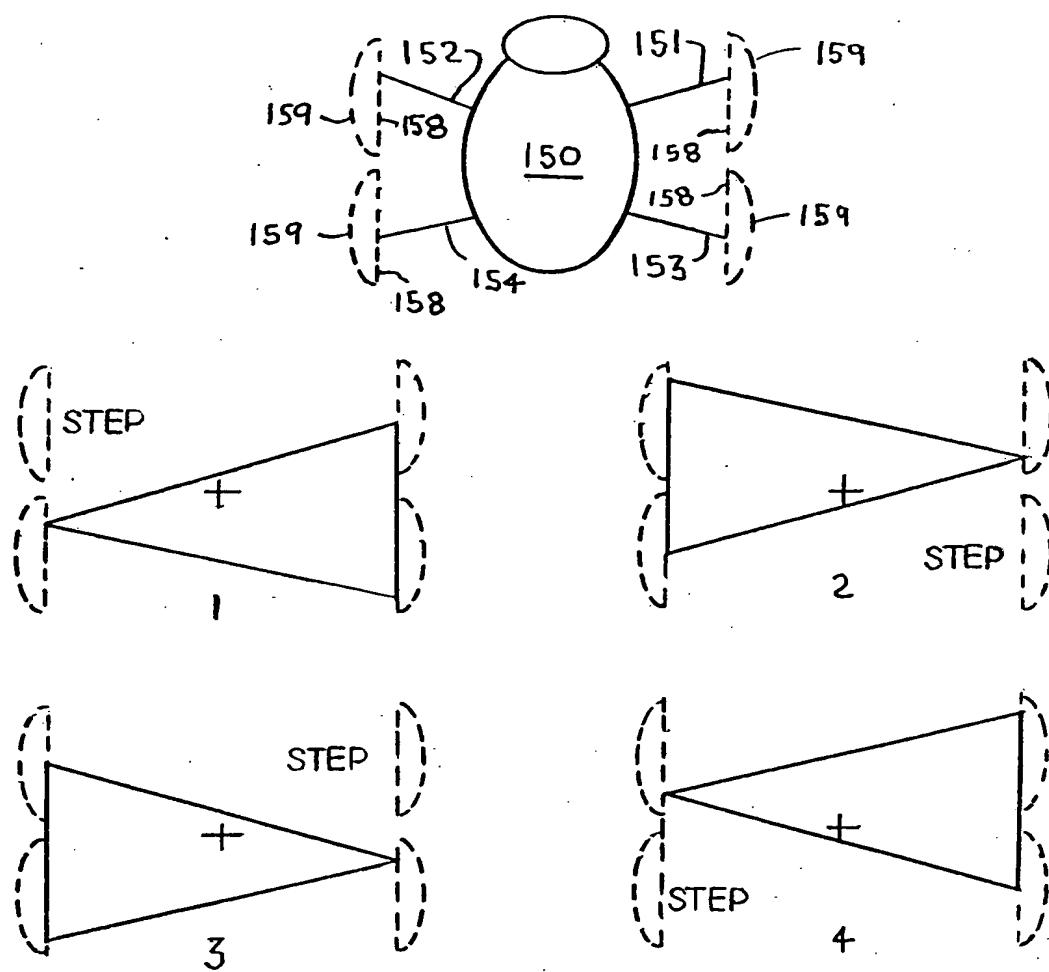


FIG. 28

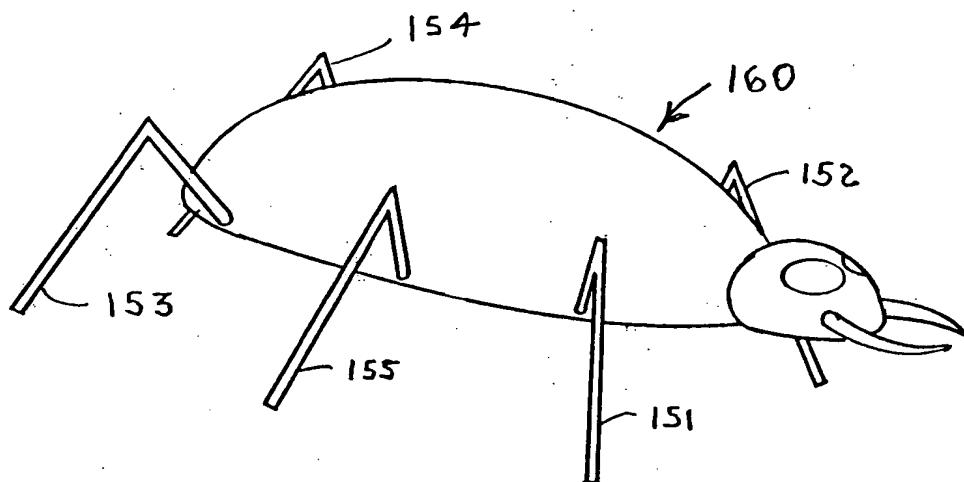


FIG. 29

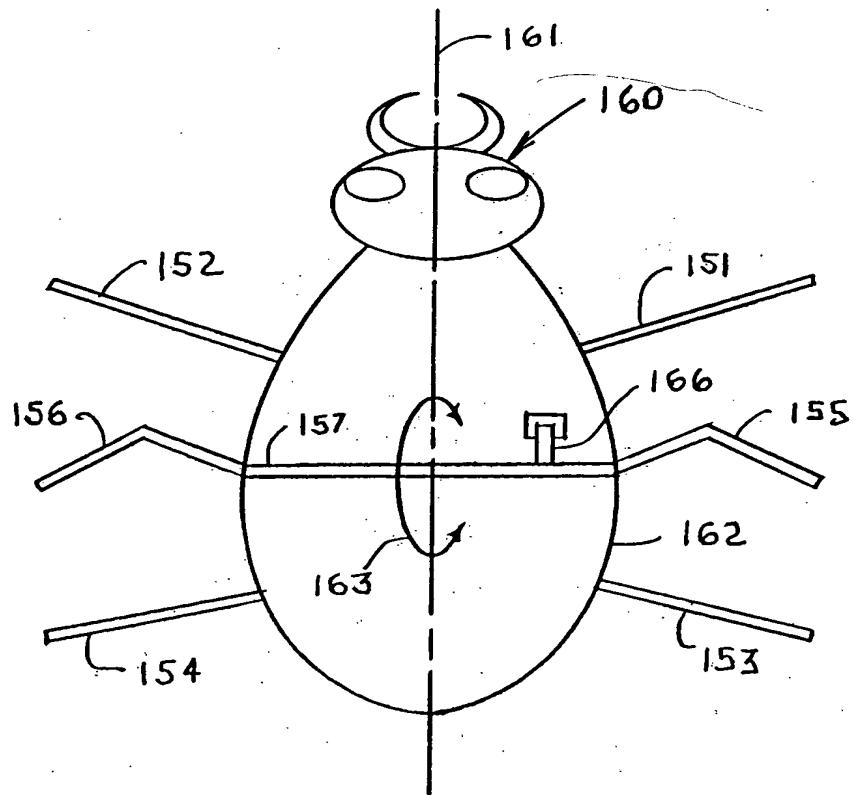
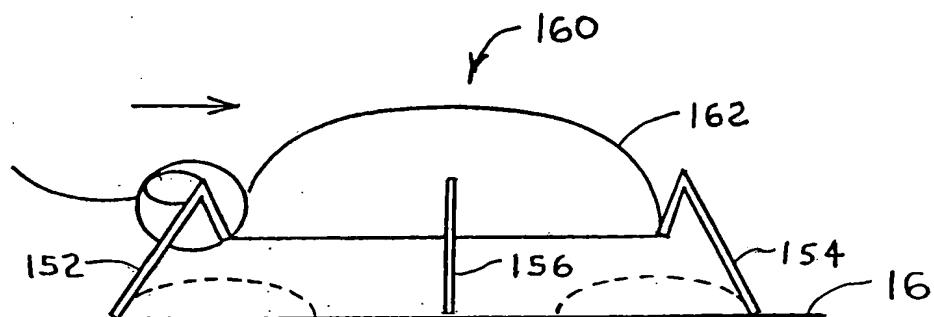
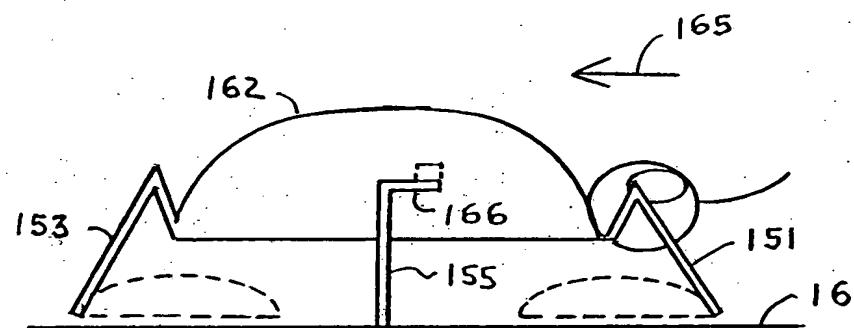
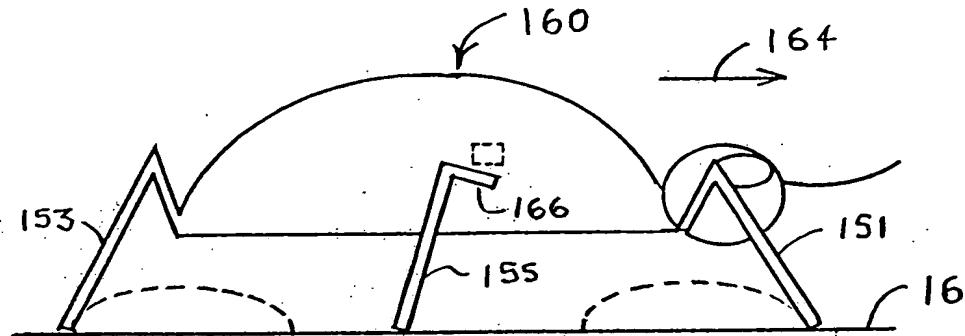


FIG. 30





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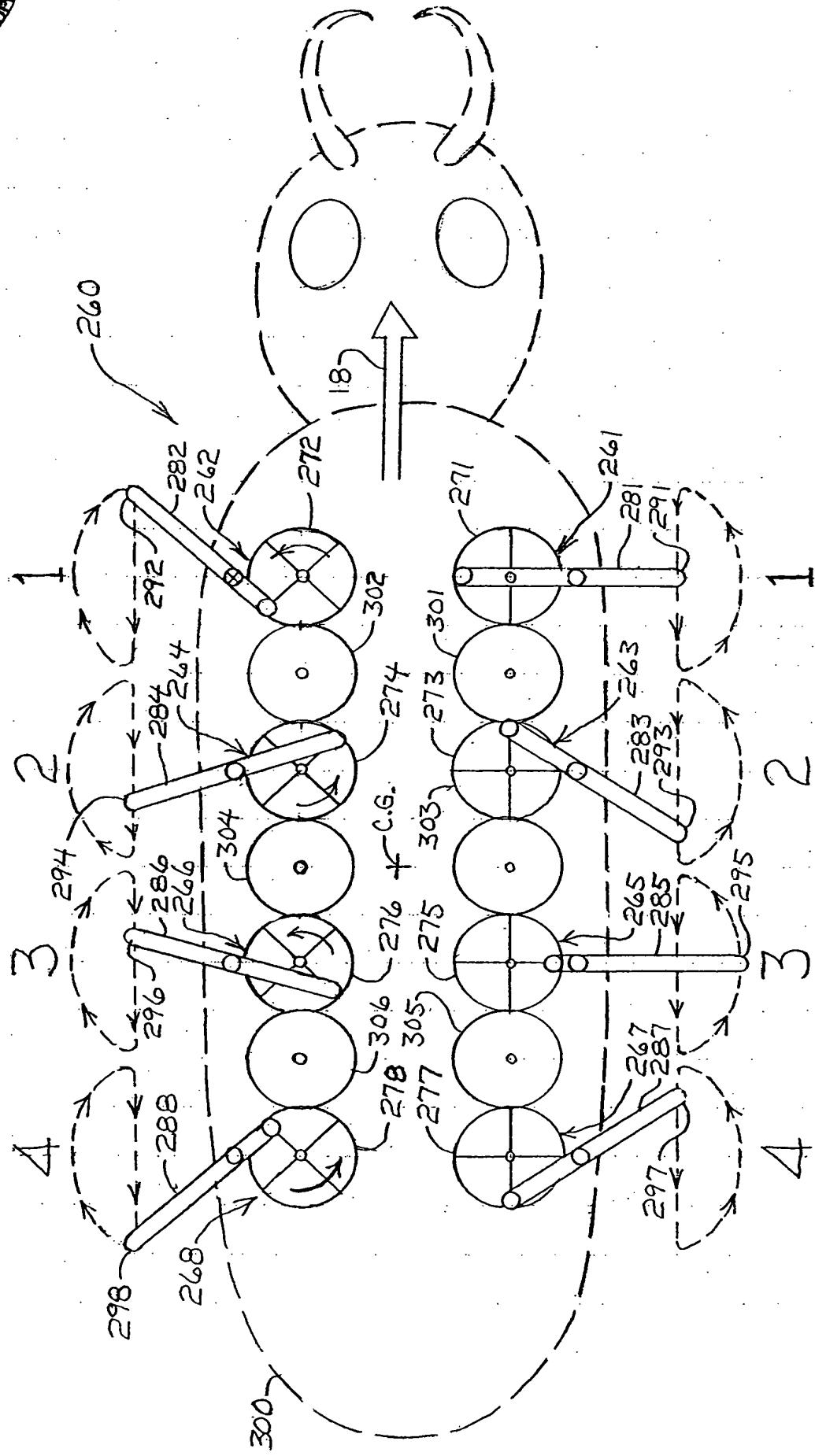


FIG. 34

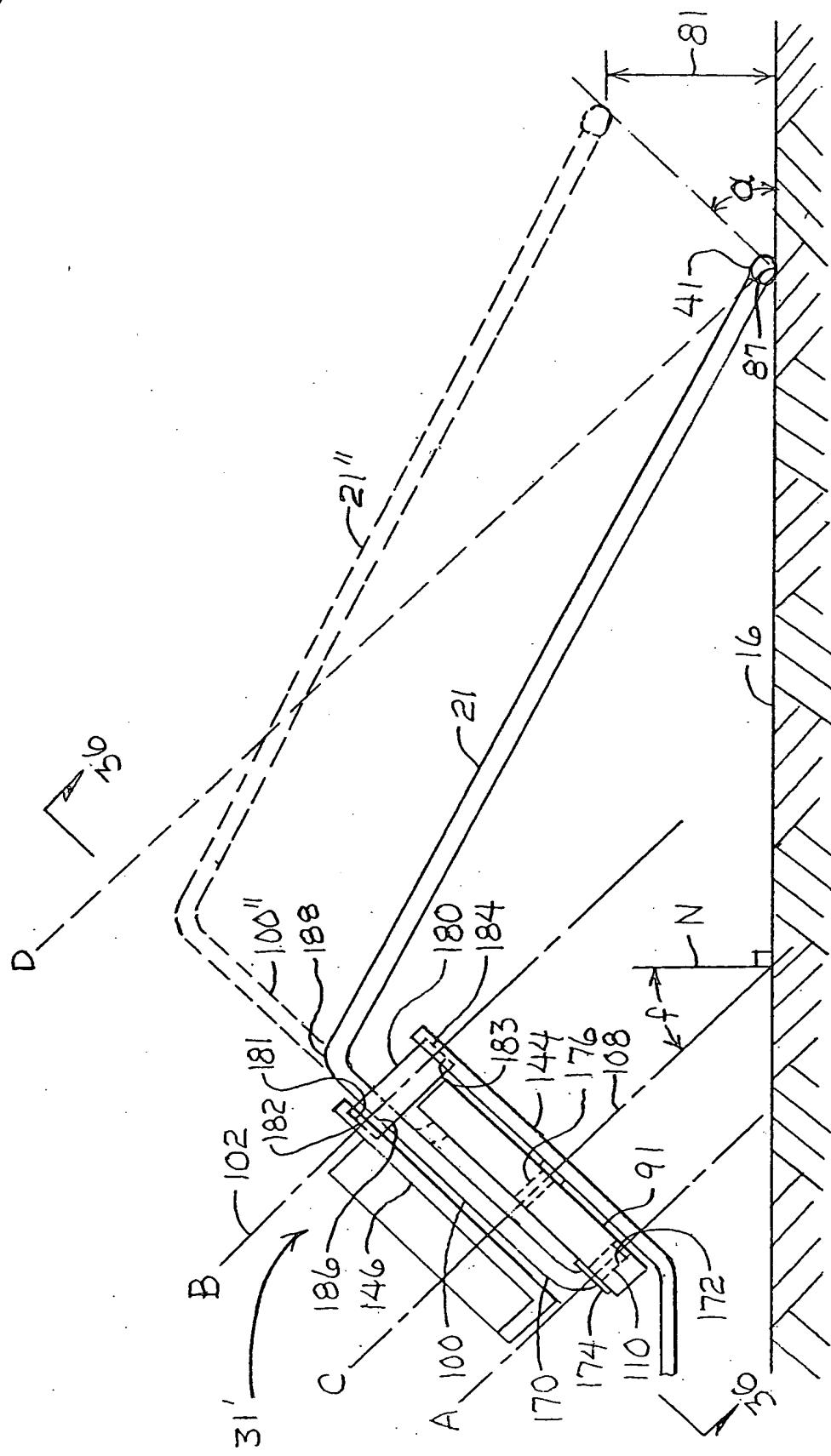


FIG. 35

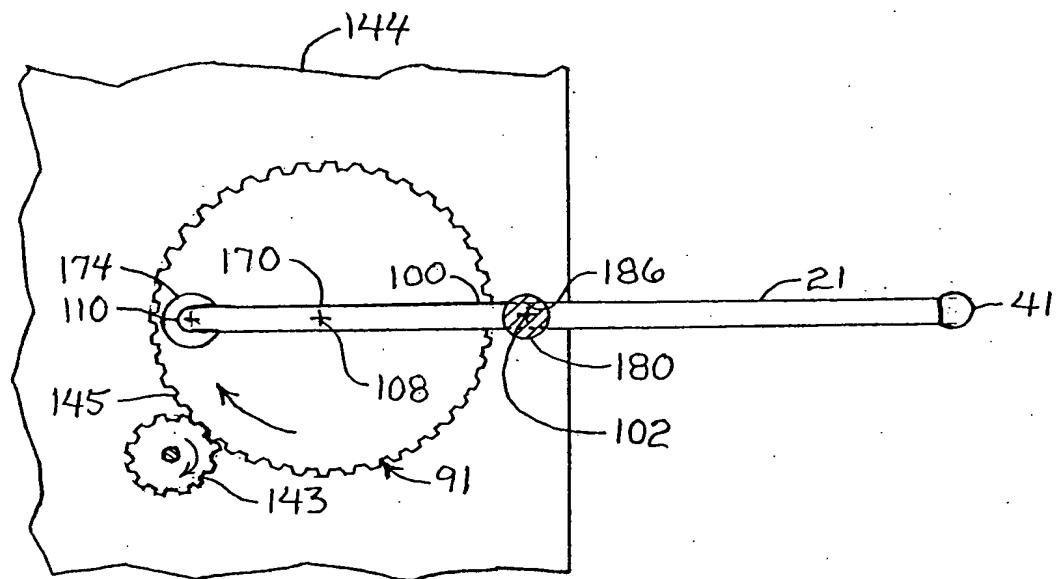


FIG. 36

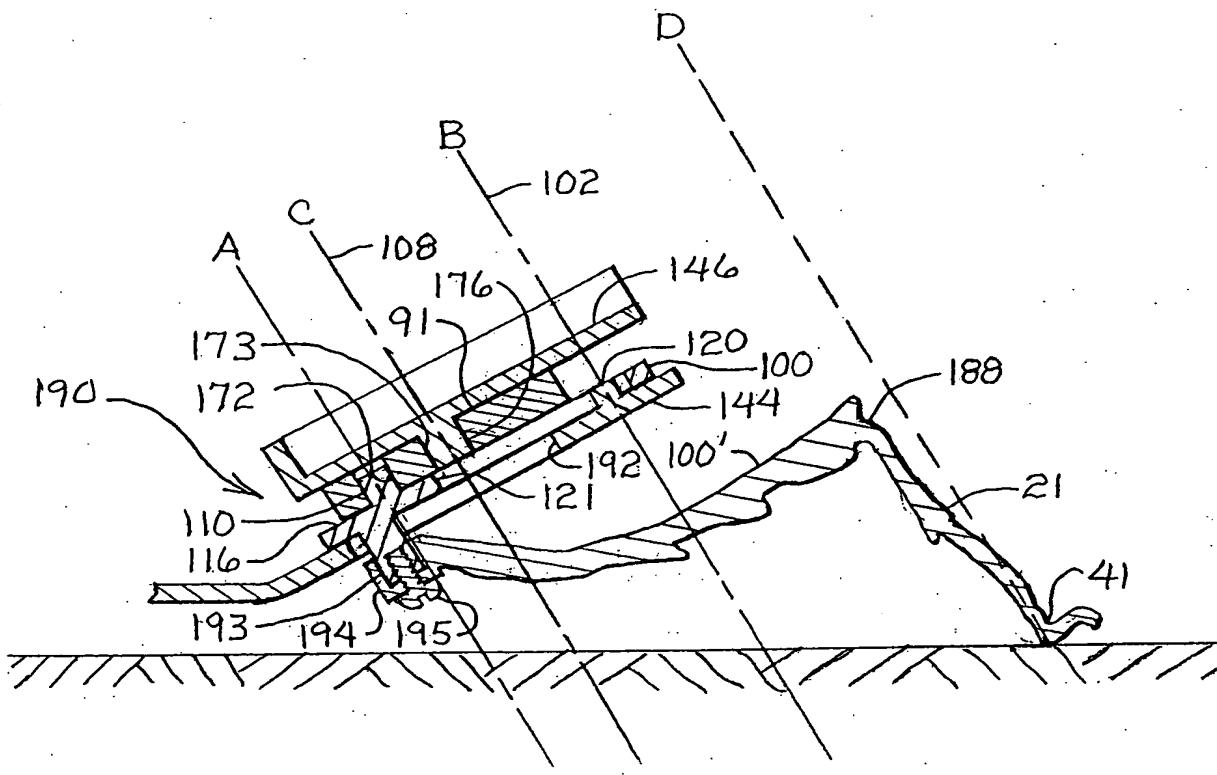


FIG. 37

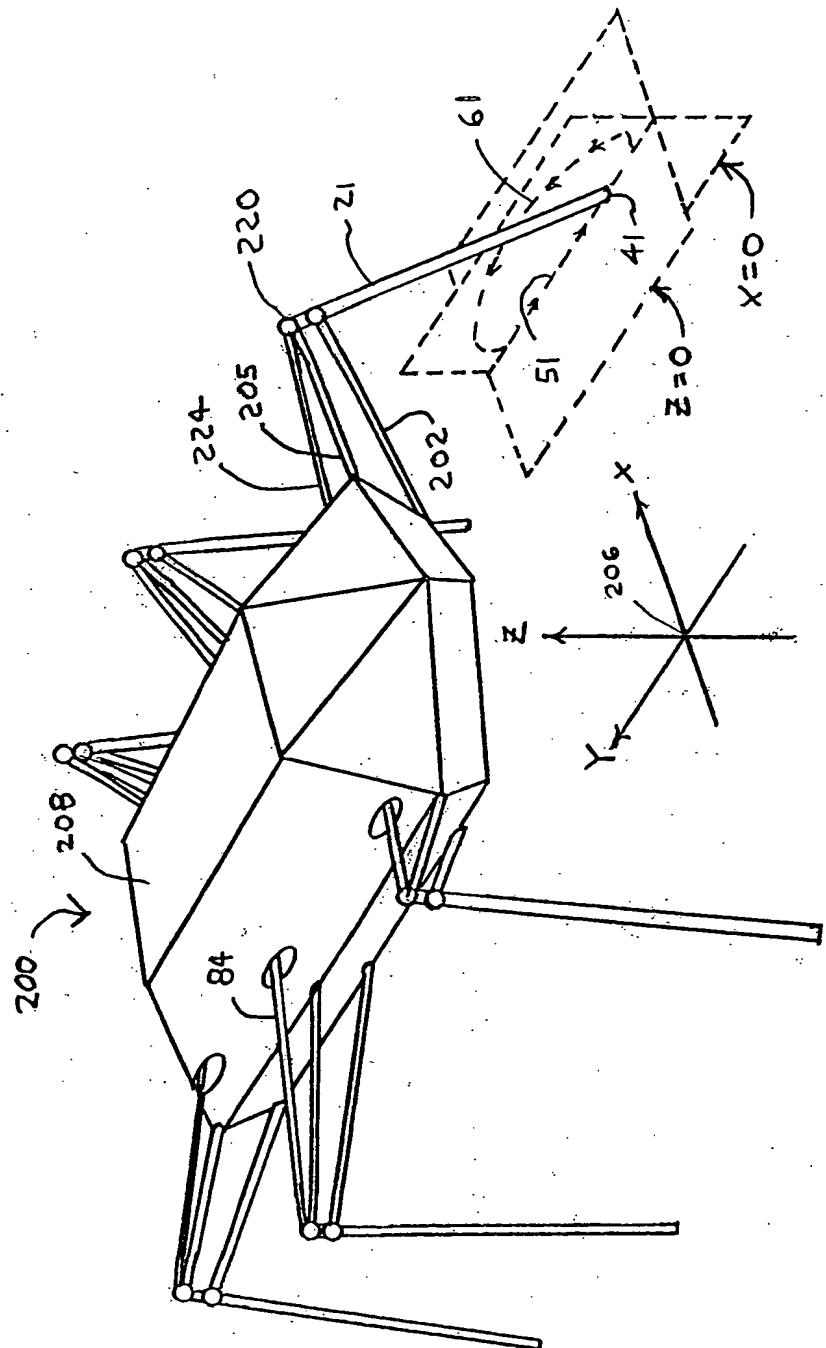


FIG. 38

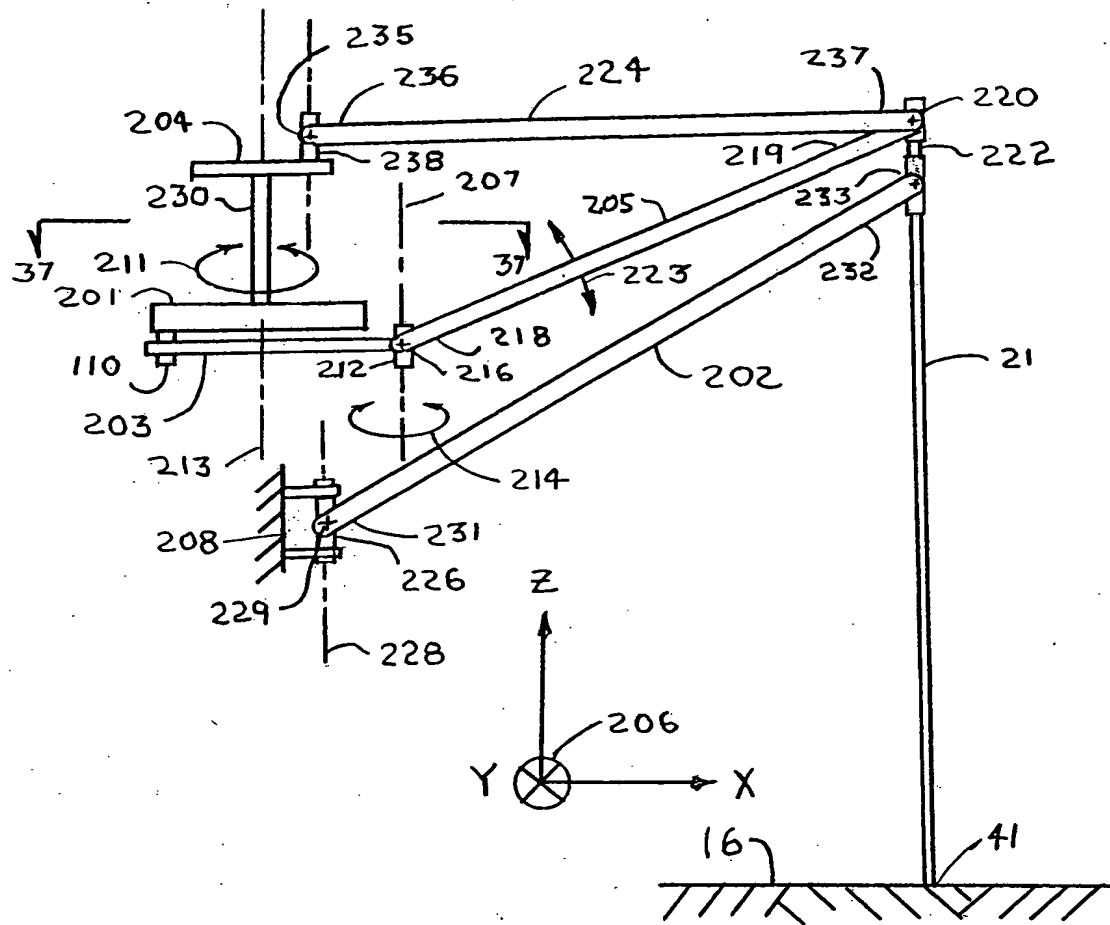
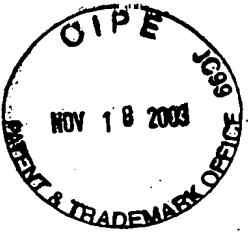


FIG. 39



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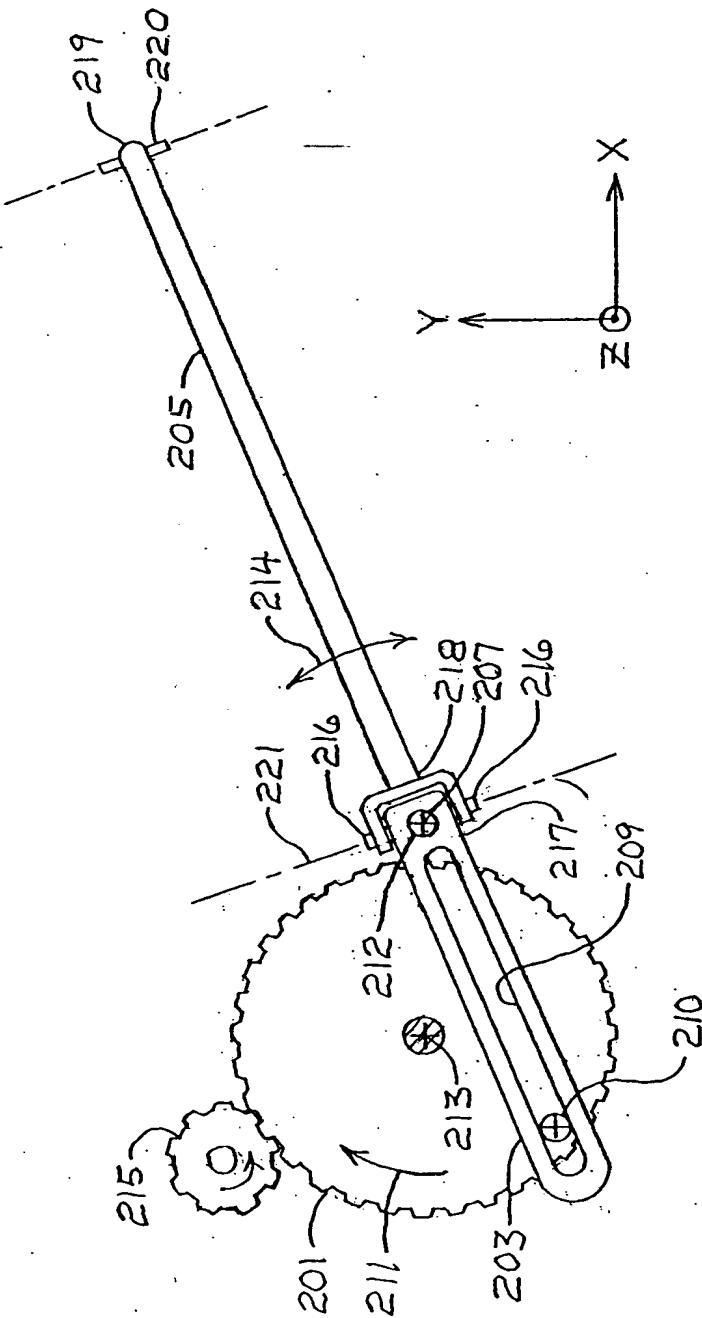
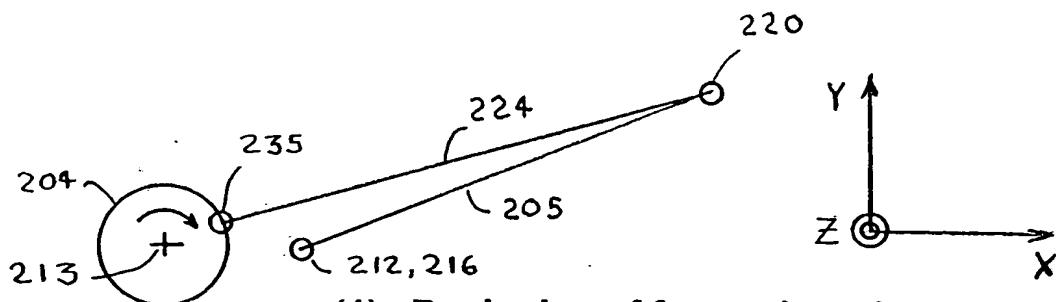


FIG. 40

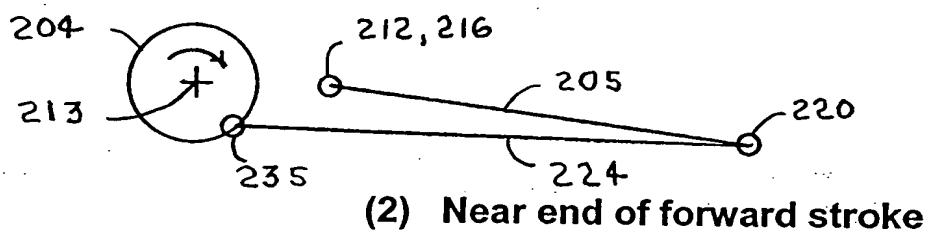


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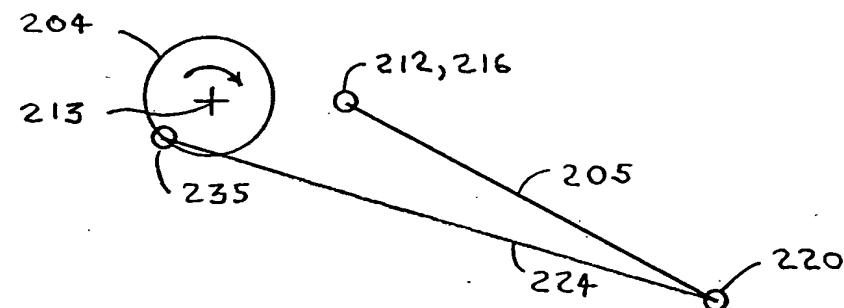
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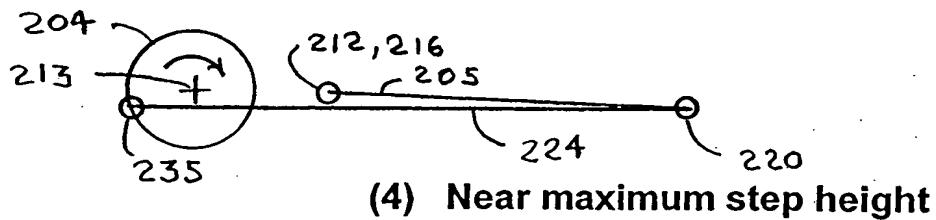
(1) Beginning of forward stroke



(2) Near end of forward stroke



(3) Lifting for step stroke



(4) Near maximum step height

FIG. 41

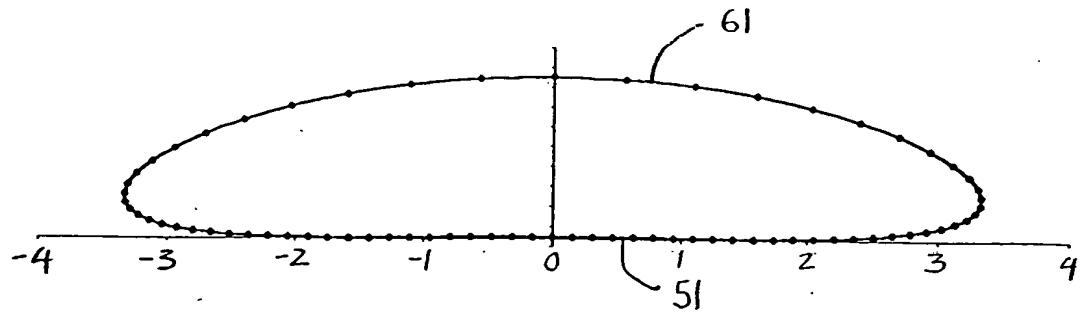


FIG. 42

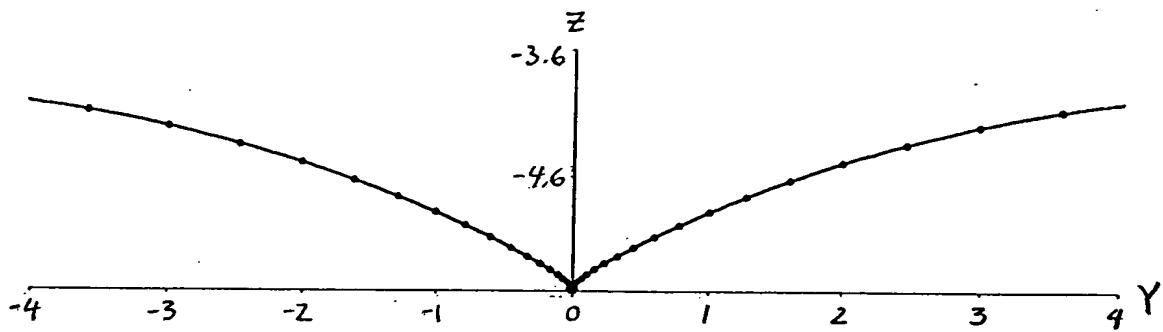
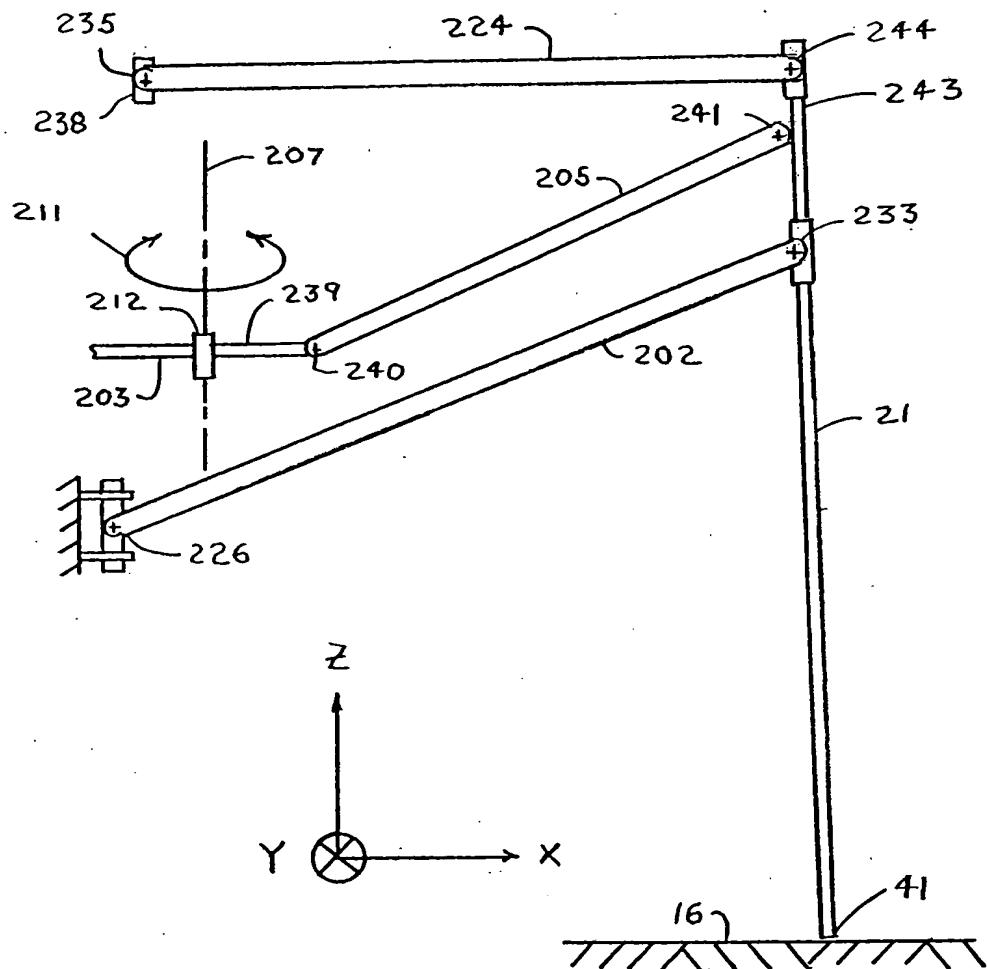


FIG. 43





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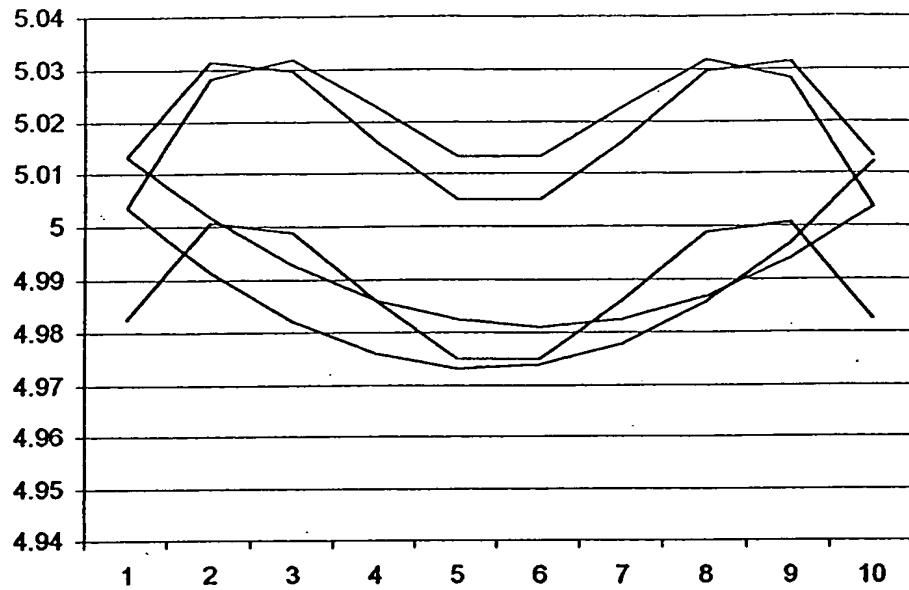


FIG. 45

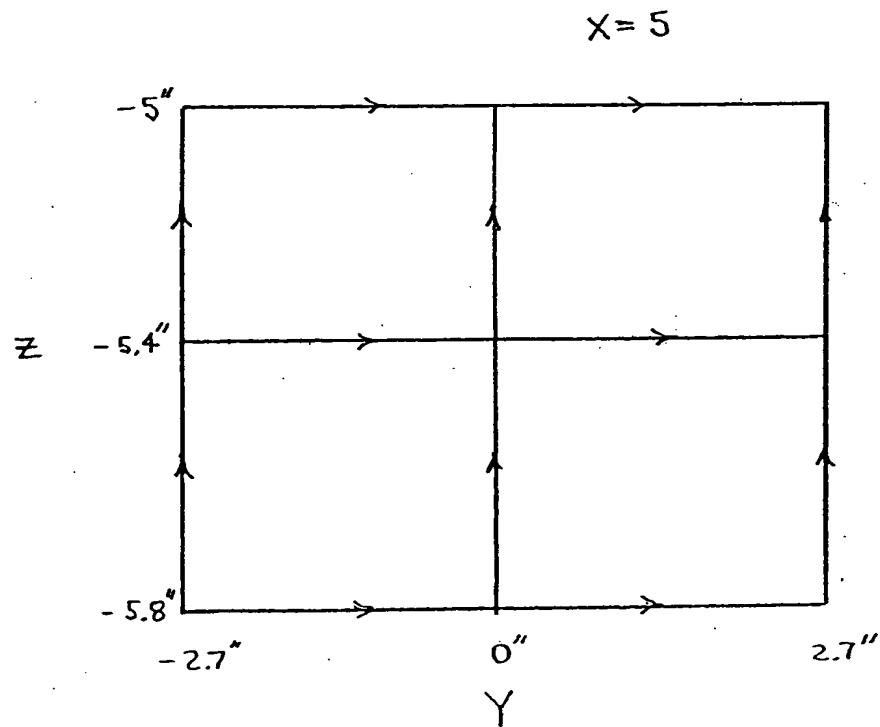


FIG. 46